Program and Table of Contents

Monday Afternoon, December 10, 1956

GENERAL SESSION — **CHAIRMAN: F. W. SLIFE**

Page No.

Remarks by the President
E. A. Helgeson 1

Publication Policies for **WEEDS**
K. P. Buchholtz 1

Advances in Weed Research in the U. S. Department of Agriculture
M. W. Parker 2

Weed Control—An Industry Point of View
Max T. Goebel 2

Our Joint Responsibility
Frank J. McFarland 3

The Fate of 2,4-D in Plants and Soils
A. C. Leopold 4

Tuesday Morning, December 11, 1956

SECTION I. BOTANY AND PLANT PHYSIOLOGY — **CHAIRMAN: L. G. HOLM**

The Relative Adsorption of Several Herbicides by Widely Differing Soils
G. F. Warren 5

Effect of Some Factors on Rate of Absorption of Maleic Hydrazide by Several Plants
J. W. Zukel 5

Absorption and Translocation of Radioactive Amino Triazole in Canada Thistle
D. D. Bondarenko and C. J. Willard 5

Further Studies on the Action of Amino Triazole in Plants
B. J. Rogers 6

The Response of Fungi to Amino Triazole
J. W. Spalding, G. A. Gries, and B. J. Rogers 6

The Effect of Ionic Additives on the Activity of 2,4-D When Applied to Soybeans
S. S. Szabo and K. P. Buchholtz 6

The Interaction of Chelated Iron and 2,4-D in Tomato Plants
B. J. Rogers 7

The Effect of Weed Competition on Corn Yields at Different Fertility Levels
Lowell S. Gleason and Reggie J. Laird 8

Plant Competition Studies with Soybeans and *Setaria* spp.
David W. Staniforth 9

Interaction of Temperature, Light, and Moistening Agent in the Germination of Weed Seeds
G. P. Steinbauer and Buford Grigsby 9

Preliminary Studies on Pollination and Seed Germination and Maturation of Thistles
Lyle A. Derscheid, Sam Zilke, and Robert Schultz 10

SECTION II. REGULATORY AND EXTENSION — **CHAIRMAN: H. T. RICHARDS**

Weed Demonstration Kits in Minnesota
E. H. Jensen and K. L. Blanchard 11

Public Relations Work in Extension
E. P. Sylwester 12

Alberta Agricultural Service Boards
G. R. Sterling 13

Some Precautionary Measures for Ground and Aerial Applications of Herbicides
Charles O. Laverty, David G. Mobberly, and R. G Miller 14

Taking Weed Research to Farmers
E. C. Spurrier and F. W. Slife 16

XUM

Program and Table of Contents

Monday Afternoon, December 10, 1956

GENERAL SESSION — **CHAIRMAN: F. W. SLIFE**

Page No.

Remarks by the President
E. A. Helgeson 1

Publication Policies for **WEEDS**
K. P. Buchholtz 1

Advances in Weed Research in the U. S. Department of Agriculture
M. W. Parker 2

Weed Control—An Industry Point of View
Max T. Goebel 2

Our Joint Responsibility
Frank J. McFarland 3

The Fate of 2,4-D in Plants and Soils
A. C. Leopold 4

Tuesday Morning, December 11, 1956

SECTION I. BOTANY AND PLANT PHYSIOLOGY — **CHAIRMAN: L. G. HOLM**

The Relative Adsorption of Several Herbicides by Widely Differing Soils
G. F. Warren 5

Effect of Some Factors on Rate of Absorption of Maleic Hydrazide by Several Plants
J. W. Zukel 5

Absorption and Translocation of Radioactive Amino Triazole in Canada Thistle
D. D. Bondarenko and C. J. Willard 5

Further Studies on the Action of Amino Triazole in Plants
B. J. Rogers 6

The Response of Fungi to Amino Triazole
J. W. Spalding, G. A. Gries, and B. J. Rogers 6

The Effect of Ionic Additives on the Activity of 2,4-D When Applied to Soybeans
S. S. Szabo and K. P. Buchholtz 6

The Interaction of Chelated Iron and 2,4-D in Tomato Plants
B. J. Rogers 7

The Effect of Weed Competition on Corn Yields at Different Fertility Levels
Lowell S. Gleason and Reggie J. Laird 8

Plant Competition Studies with Soybeans and *Setaria* spp.
David W. Staniforth 9

Interaction of Temperature, Light, and Moistening Agent in the Germination of Weed Seeds
G. P. Steinbauer and Buford Grigsby 9

Preliminary Studies on Pollination and Seed Germination and Maturation of Thistles
Lyle A. Derscheid, Sam Zilke, and Robert Schultz 10

SECTION II. REGULATORY AND EXTENSION — **CHAIRMAN: H. T. RICHARDS**

Weed Demonstration Kits in Minnesota
E. H. Jensen and K. L. Blanchard 11

Public Relations Work in Extension
E. P. Sylwester 12

Alberta Agricultural Service Boards
G. R. Sterling 13

Some Precautionary Measures for Ground and Aerial Applications of Herbicides
Charles O. Laverty, David G. Mobberly, and R. G Miller 14

Taking Weed Research to Farmers
E. C. Spurrier and F. W. Slife 16

XUM

Correlation of the Weed and Seed Law
Lloyd Van Patten 16

Correlation of Infested Materials and the Weed Law
Jake R. Ubel 17

Organization of Minnesota Weed Control Program
Sig. Bjerken 18

Correlation of Ports of Entry Inspection and the State Weed Law
Dale A. Bush 19

Screenings in Commercial Feeds and How They Affect Weed Law Enforcement
Buford Jones 19

Functions of the State Weed Board
C. J. Gilbert 20

Noxious Weed Law Enforcement by Local Governments
Howard T. Richards 20

Buckthorn Eradication Program Initiated in Wisconsin
D. R. Peterson 21

Weeds and Weed Control Legislation Regarding Indian Lands
H. Hokanson 22

What We Need to do as a Regulatory Group to Strengthen Our Position in the North Central Weed Control Conference
Sig. Bjerken 22

A Report
C. J. Gilbert 23

SECTION III. WATER WEEDS AND WEED CONTROL IN WILDLIFE HABITATS
CHAIRMAN: B. H. GRIGSBY

Vegetation Control Problems in Wildlife Habitats
J. H. Davidson 24

Vegetation Control Problems in Wildlife Habitats—Water Fowl
M. D. Pirnie 24

Vegetation Control Problems in Wildlife Habitats—Fish
F. F. Hooper 24

Vegetative Control Problems in Wildlife Habitats as They Pertain to Upland Game
L. C. Ruch 25

The Control of Aquatic Weeds in Water Fowl Habitats
F. C. Bellrose 26

Herbicides for Creating Wildlife Food Patches
R. Thompson and Cyril Kabat 26

Chemical Seedbed Preparation for Game Food Patches
L. Zorb, L. Ruch, and R. G. Heath 27

Use of Herbicides for Improving Ozark Wild Turkey and Deer Range
J. B. Lewis and R. L. Dunkeson 28

Creating and Maintaining Openings in Wood Areas by the Use of Herbicides
L. C. Ruch 28

A Preliminary Report on the Experimental Use of Herbicides in Wisconsin to Control and Manipulate Bog Type Vegetation for Water Fowl
L. R. Jahn and B. H. Popov 29

Dichlone as a Control for Algae and Submerged Aquatics
H. D. Tate and G. E. O'Brien 30

A New Approach to the Control of Certain Aquatic Vegetation
B. H. Grigsby, R. H. Hamilton, and J. Smith 30

Tuesday Afternoon, December 11, 1956

SECTION I. WEEDS (ANNUALS, BIENNIALS, PERENNIALS) **CHAIRMAN: D. W. STANIFORTH**

Timing Applications of Amino Triazole for Canada Thistle Control
Oliver C. Lee 31

Chemical Control of Johnson Grass
L. E. Anderson 32

XUM

In vitro Sprouting of Johnson Grass Rhizomes
M. Ingle and B. J. Rogers 32

Report on Wild Buckwheat Studies at the Experimental Farm, Scott, Saskatchewan
D. E. Forsberg 33

Preliminary Research in Developing a Chemical Fallow Farming System
A. F. Wiese 34

Ecological Relationships of Weed Communities in Northwestern Indiana
Forest W. Stearns and Lore Kutshera 34

Some Correlations Between Germination and Dormancy of Weed Seeds in the Laboratory and in the Field
G. P. Steinbauer and Buford Grigsby 35

Germination Characteristics of Milkweed *(Asclepiadaceae)* Seeds
B. J. Rogers and F. W. Stearns 36

Effects of 2,4-D Ester on Russian Thistle in Flax
J. J. Sexsmith 37

Competition, Cultivation, and Chemicals to Eliminate Russian Knapweed
L. A. Derscheid, K. E. Wallace, and R. L. Nash 37

Chlorinated Benzoic Acids for the Control of Quackgrass
K. P. Buchholtz 39

Effectiveness of 2,4-D for Control of Wild Garlic and Wild Onion in Winter Grains
C. W. Lobenstein and H. L. Portz 39

SECTION II. TURF **CHAIRMAN: W. H. DANIEL**

Methyl Bromide as an Aid in Producing Weed-Free Turf
J. H. Davidson 40

Successful Weed Control on Golf Courses
Ted Woehrle 41

Successful Weed Control on Turf
Gordon Brinkworth 41

Crabgrass Control Studies
T. W. Hogard and D. D. Hemphill 42

Crabgrass Control in Bluegrass Turf
R. R. Davis 43

Crabgrass Control in Wisconsin
R. B. Taylorson, R. C. Rom, and M. N. Dana 44

Crabgrass Control in Bluegrass Lawns
R. J. Stadtherr and R. E. Nylund 45

Crabgrass Control Studies
N. R. Goetze and W. H. Daniel 45

Control of 2,4-D-Resistant Broadleaved Lawn Weeds
D. D. Hemphill and T. W. Hogard 46

Miscellaneous Weed Control in Turf
N. R. Goetze and W. H. Daniel 47

Crabgrass Seedling Emergence near Minneapolis, Minnesota
Howard E. Kaerwer 48

Dandelion Control as Affected by Temperature
E. P. Sylwester 48

Wednesday Morning, December 12, 1956

SECTION I. WEED CONTROL IN FIELD CROPS **CHAIRMAN: R. S. DUNHAM**

Effect of MCP and 2,4-D Upon Legume Seedings and Hay Yields
B. R. Churchill and B. H. Grigsby 49

Promising Herbicides for the Control of Annual Bromegrasses
Dayton L. Klingman and Harold D. Kerr 50

The Influence of a Cross Wind on Banded Spray Applications
C. L. Wilson and J. M. Deming 51

XUM

Weed Control in Seedling Birdsfoot Trefoil
Harold D. Kerr and Dayton L. Klingman 51

An Appraisal of Losses in Grain Fields Caused by Weed Competition
D. L. Canvin and George Friesen 52

The Effect of Several Herbicides for the Control of Wild Oats in Cereal Crops and Flax
George Friesen 53

Weed Control in Corn in the Wet Tropics
Lowell S. Gleason 54

Crop Uses of the Substituted Urea Herbicides
Florian J. Otto 54

Control of Johnson Grass in Sorghum
A. F. Wiese and H. E. Rea 55

2,4-D and MCPA (MCP) Compared in Controlling Weeds in Grain Crops Throughout the Canadian Prairie Provinces
H. E. Wood 56

Simazin and Related Triazine Compounds as Pre-emergence and Post-emergence Herbicides
Clayton E. Bartley 57

SECTION II. HORTICULTURE **CHAIRMAN: D. D. HEMPHILL**

Weed Control in Sugar Beets
Russell T. Nelson 58

The Tolerance of Several Vegetable Crops to Pre-planting Treatments of Dalapon
William Welker, L. Rake, and L. Holm 59

The Effect of Fertilizer Applications on Quackgrass Control with Dalapon Treatments Before Planting Vegetables
S. K. Ries 60

Comparative Costs of Weeding Onions with Herbicides
E. K. Alban 61

Damage to Tomatoes From 2,4-D
Wayne A. Robbins and William S. Taylor 62

Comparison of Some Chemicals Applied as Residual Pre-emergence Sprays to Control Common Crabgrass in Established Strawberry Plantings
Ronald W. Campbell and George S. Atteridg 62

Selective Herbicides for Cranberries
Malcolm N. Dana 63

Chemical Weed Control in Vineyards
D. D. Hemphill 64

Weed Control in Conifers
R. B. Taylorson and L. Holm 65

Diuron for Weed Control in New Windbreak Plantings
Walter T. Bagley and Karl A. Loerch 66

Elimination of Grasses and Weeds Under Nursery Conditions
L. C. Chadwick and W. D. Chambers 67

SECTION III. INDUSTRIAL WEED CONTROL **CHAIRMAN: R. L. WARDEN**

Injector Method for Tree and Brush Control
Harry M. Elwell 68

Brush Control with CMU in Bands and Grids
O. H. Fletchall 70

The Effectiveness of Several Chemical and Mechanical Brush Control Methods with Respect to Certain Species
R. J. Delorit and K. P. Buchholtz 71

Ten Years of Commercial Brush Control: Where Are We? Where Are We Going?
Homer L. Jacobs 71

Analysis of Equipment Used for Basal Applications
R. E. Larson 72

Reducing Fire Hazards from Grass and Weeds in Forest Firelanes and Pulpwood Storage Yards
J. E. Kuntz and A. J. Riker 73

XUM

The Substituted Urea Herbicides and Their Use in Industrial Weed Control
M. C. Swingle 74

The Increasing Vegetation Problems Encountered by Railroads and Their Control
G. R. Bargerhuff 75

What Railroads Are Using in Weed Control
Edwin W. Cox 76

Control of Vegetation on Railroads
R. H. Schieferstein and W. E. Loomis 77

Wednesday Noon, December 12, 1956

LUNCHEON PROGRAM **CHAIRMAN: E. A. HELGESON**

Speaker—A. G. Norman—The Current Unbalance in Herbicide Research 78

Presentation of Awards
Honorary Membership
Industry Awards 79

Resolutions 80

1956 Weed Essay Contest Winner
How We Control Weeds on Our Farm
Elaine Pankiw 81

Registration List

List of Member Commercial Organizations

XUM

XUM